

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:

10/518,955

Source:

PT

Date Processed by STIC:

1-10-05

ENTERED



PCT

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/518,955

DATE: 01/10/2005
TIME: 15:43:39

Input Set : A:\21033yp.txt
Output Set: N:\CRF4\01102005\J518955.raw

```

4 <110> APPLICANT: Qian, Su
5     Van der Ploeg, Leonardus, H.T.
6     Chen, Howard
7     Weingarth, Drew T.
8     Trumbauer, Myrna
9     Metzger, Joseph M.
11 <120> TITLE OF INVENTION: Agouti-related protein deficient cells,
12     non-human transgenic animals and methods of selecting
13     compounds which regulate energy metabolism
16 <130> FILE REFERENCE: 21033YP
C--> 18 <140> CURRENT APPLICATION NUMBER: US/10/518,955
C--> 18 <141> CURRENT FILING DATE: 2004-12-17
18 <150> PRIOR APPLICATION NUMBER: PCT/US03/20245
19 <151> PRIOR FILING DATE: 2003-06-27
21 <150> PRIOR APPLICATION NUMBER: 60/393,391
22 <151> PRIOR FILING DATE: 2002-07-03
24 <160> NUMBER OF SEQ ID NOS: 14
26 <170> SOFTWARE: FastSEQ for Windows Version 4.0
28 <210> SEQ ID NO: 1
29 <211> LENGTH: 923
30 <212> TYPE: DNA
31 <213> ORGANISM: Mus musculus
33 <400> SEQUENCE: 1
34 agactataaca ggaattggga ctttctggga gcatctctct cagcgctggt agggtaccct 60
35 aaggatgagg agagactaaa tgggggtttt cctgctgagc caggccatgc tgactgcaat 120
36 gtgtgctgagt tgtgttctgc tgttgttgcact gcctcccaca ctgggggtcc agatgggcgt 180
37 ggctccactg aaggccatca gaaggcctga ccaggctctg ttcccaagagt tcccaggtga 240
38 gtatggtcag gttggggata tgtggggcaa cgaccattgc tggccacaga cctgcccggcc 300
39 caggcttaga cctccttccc caatcccaat cccaaacctag ggaggtgggt acttggtgca 360
40 tggtgtgggtg ggccctcaca tcttcttgcc ccaggtctaa gtctgaatgg cctcaagaag 420
41 acaaactgcag accgagcaga agaagttctg ctgcagaagg cagaagctt ggccggaggta 480
42 actcattagg gaaaggggata aagtagaagg tagggcgcattt cagataaccat catctctccc 540
43 cacttccgga ttacccaacc tgggcagaac tgcagccccct ccctgacccctc agtccactgc 600
44 caccctactg gggtcggggt ttgagagttt cctgaacccctt attcccccac gaatgcaggt 660
45 gctagatcca cagaaccgcgc agtctcgatc tccgcgtcgc tggtaaggc tgacacgagtc 720
46 ctgtttggga cagcaggatc cttgctgcga cccgtgcgt acgtgctactt gcccgttctt 780
47 caatgccttt tgctactgcc gcaagctggg taccggccacg aacctctgtt gtcgcaccta 840
48 gccaatggat gttgtttggg aaaggcagggg gatgagaata aaggatcgaa acggtttaac 900
49 cttaaagctg tggttatttc ttt                                         923
51 <210> SEQ ID NO: 2
52 <211> LENGTH: 131
53 <212> TYPE: PRT
54 <213> ORGANISM: Mus musculus

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56 <400> SEQUENCE: 2
 57 Met Leu Thr Ala Met Leu Leu Ser Cys Val Leu Leu Leu Ala Leu Pro
 58 1 5 10 15
 59 Pro Thr Leu Gly Val Gln Met Gly Val Ala Pro Leu Lys Gly Ile Arg
 60 20 25 30
 61 Arg Pro Asp Gln Ala Leu Phe Pro Glu Phe Pro Gly Leu Ser Leu Asn
 62 35 40 45
 63 Gly Leu Lys Lys Thr Thr Ala Asp Arg Ala Glu Glu Val Leu Leu Gln
 64 50 55 60
 65 Lys Ala Glu Ala Leu Ala Glu Val Leu Asp Pro Gln Asn Arg Glu Ser
 66 65 70 75 80
 67 Arg Ser Pro Arg Arg Cys Val Arg Leu His Glu Ser Cys Leu Gly Gln
 68 85 90 95
 69 Gln Val Pro Cys Cys Asp Pro Cys Ala Thr Cys Tyr Cys Arg Phe Phe
 70 100 105 110
 71 Asn Ala Phe Cys Tyr Cys Arg Lys Leu Gly Thr Ala Thr Asn Leu Cys
 72 115 120 125
 73 Ser Arg Thr
 74 130
 77 <210> SEQ ID NO: 3
 78 <211> LENGTH: 486
 79 <212> TYPE: DNA
 80 <213> ORGANISM: Homo sapien
 82 <400> SEQUENCE: 3
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 84 ggagcccaga tgggcttggc ccccatggag ggcatacggaa ggcctgatcca ggcctgctc 120
 85 ccagagctcc caggcctggg cctgcggggcc ccactgaaga agacaactgc agaacaggca 180
 86 gaagaggatc tggcagga ggctcaggcc ttggcagagg tactagacct gcaggaccgc 240
 87 gagccccgtc cctcacgtcg ctgcgttaagg ctgcatacgat cctgcctggg acagcagggtg 300
 88 cttgctgtg acccatgtgc cacgtgtac tgccgcttct tcaatgcctt ctgctactgc 360
 89 cgcaagctgg gtactgccc catccctgc agccgcacct agctggccaa cgtcagggtc 420
 90 ggggctaggg tagggcaag gaaaactcgaa taaaggatgg gaccaacaaa aaaaaaaaaa 480
 91 aaaaaaa 486
 93 <210> SEQ ID NO: 4
 94 <211> LENGTH: 132
 95 <212> TYPE: PRT
 96 <213> ORGANISM: Homo sapien
 98 <400> SEQUENCE: 4
 99 Met Leu Thr Ala Ala Val Leu Ser Cys Ala Leu Leu Ala Leu Pro
 100 1 5 10 15
 101 Ala Thr Arg Gly Ala Gln Met Gly Leu Ala Pro Met Glu Gly Ile Arg
 102 20 25 30
 103 Arg Pro Asp Gln Ala Leu Leu Pro Glu Leu Pro Gly Leu Gly Leu Arg
 104 35 40 45
 105 Ala Pro Leu Lys Lys Thr Thr Ala Glu Gln Ala Glu Glu Asp Leu Leu
 106 50 55 60
 107 Gln Glu Ala Gln Ala Leu Ala Glu Val Leu Asp Leu Gln Asp Arg Glu
 108 65 70 75 80
 109 Pro Arg Ser Ser Arg Arg Cys Val Arg Leu His Glu Ser Cys Leu Gly

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110          85          90          95
111 Gln Gln Val Pro-Cys Cys Asp Pro Cys Ala Thr Cys Tyr Cys Arg-Phe
112          100         105         110
113 Phe Asn Ala Phe Cys Tyr Cys Arg Lys Leu Gly Thr Ala Met Asn Pro
114          115         120         125
115 Cys Ser Arg Thr
116          130
119 <210> SEQ ID NO: 5
120 <211> LENGTH: 483
121 <212> TYPE: DNA
122 <213> ORGANISM: Mus musculus
124 <400> SEQUENCE: 5
125 atgcttaggta acaagcgaat ggggctgtgt ggactgaccc tcgctctatc tctgctcg 60
126 tgtttggcca ttctggctga ggggtacccc tccaaaggccgg acaatccggg cgaggacgcg 120
127 ccagcagagg acatggccag atactactcc gctctgcgac actacatcaa tctcatcacc 180
128 agacagagat atggcaagag atccagccct gagacactga tttcagaccc cttaatgaag 240
129 gaaagcacag aaaacgcccc cagaacaagg cttaaagacc cttccatgtg gtgatggaa 300
130 atgaaacttg ttctcccgac ttttccaagt ttccaccctc atctcatctc atccatcccc 360
131 tgaaaaccgt ctgcctgtcc caccaatgca tgcaccact aggctgact ccgcggcatt 420
132 tcccttgttg ttgttgtata tatgtgtgtt taaataaaagt accatgcatt caaaaaaaaa 480
133 aaa                                     483
135 <210> SEQ ID NO: 6
136 <211> LENGTH: 97
137 <212> TYPE: PRT
138 <213> ORGANISM: Mus musculus
140 <400> SEQUENCE: 6
141 Met Leu Gly Asn Lys Arg Met Gly Leu Cys Gly Leu Thr Leu Ala Leu
142 1          5          10          15
143 Ser Leu Leu Val Cys Leu Gly Ile Leu Ala Glu Gly Tyr Pro Ser Lys
144          20         25         30
145 Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp Met Ala Arg Tyr
146          35         40         45
147 Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr
148          50         55         60
149 Gly Lys Arg Ser Ser Pro Glu Thr Leu Ile Ser Asp Leu Leu Met Lys
150 65          70         75         80
151 Glu Ser Thr Glu Asn Ala Pro Arg Thr Arg Leu Glu Asp Pro Ser Met
152          85         90         95
153 Trp
157 <210> SEQ ID NO: 7
158 <211> LENGTH: 404
159 <212> TYPE: DNA
160 <213> ORGANISM: Homo sapien
162 <400> SEQUENCE: 7
163 atgcttaggta acaagcgact ggggctgtcc ggactgaccc tcgcccgttc cctgctcg 60
164 tgcctgggtg cgctggccga ggcgtacccc tccaaaggccgg acaaccggg cgaggacgc 120
165 ccagcggagg acatggccag atactactcg gcgctgcgac actacatcaa cctcatcacc 180
166 aggccagagat atggaaaacg atccagccca gagacactga tttcagaccc cttgtatgaga 240
167 gaaagcacag aaatgttcc cagaactegg cttaaagacc ctgcaatgtg gtgatggaa 300

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168 atgagacttg ctctctggcc tttccttatt ttccatccccat atttcatacggt gtaaaacgag 360
 169 aatccaccca tcctaccat gcatgcagcc actgtgctga attc 404
 171 <210> SEQ ID NO: 8
 172 <211> LENGTH: 97
 173 <212> TYPE: PRT
 174 <213> ORGANISM: Homo sapien
 176 <400> SEQUENCE: 8
 177 Met Leu Gly Asn Lys Arg Leu Gly Leu Ser Gly Leu Thr Leu Ala Leu 15
 178 1 5 10 15
 179 Ser Leu Leu Val Cys Leu Gly Ala Leu Ala Glu Ala Tyr Pro Ser Lys 30
 180 20 25 30
 181 Pro Asp Asn Pro Gly Glu Asp Ala Pro Ala Glu Asp Met Ala Arg Tyr 45
 182 35 40 45
 183 Tyr Ser Ala Leu Arg His Tyr Ile Asn Leu Ile Thr Arg Gln Arg Tyr 60
 184 50 55 60
 185 Gly Lys Arg Ser Ser Pro Glu Thr Leu Ile Ser Asp Leu Leu Met Arg 80
 186 65 70 75 80
 187 Glu Ser Thr Glu Asn Val Pro Arg Thr Arg Leu Glu Asp Pro Ala Met 95
 188 85 90 95
 189 Trp
 193 <210> SEQ ID NO: 9
 194 <211> LENGTH: 402
 195 <212> TYPE: DNA
 196 <213> ORGANISM: Artificial Sequence
 198 <220> FEATURE:
 199 <223> OTHER INFORMATION: Probe
 201 <400> SEQUENCE: 9
 202 catgctgacc gcaatgttgc tgagttgtgt tctgtgttgc gcactgcctc ccacactggg 60
 203 ggtccagatg ggcgtggctc cactgaagg catcagaagg cctgaccagg ctctgttccc 120
 204 agagttccca ggtctaagtc tgaatggctt caagaagaca actgcagacc gagcagaaga 180
 205 agttctgtcg cagaaggcag aagctttggc ggagggtcta gatccacacaga accgcgagtc 240
 206 tcgttctccg cgtcgctgtg taaggctgca cgagtcctgc ttgggacacgc aggtaccttgc 300
 207 ctgcgaccgc tgcgctacgt gctactgcgc cttcttcaat gcctttgtct actgccgcaa 360
 208 gctgggtacg gccaccaacc tctgcagccg cacctagccaa at 402
 210 <210> SEQ ID NO: 10
 211 <211> LENGTH: 45
 212 <212> TYPE: DNA
 213 <213> ORGANISM: Artificial Sequence
 215 <220> FEATURE:
 216 <223> OTHER INFORMATION: Antisense Oligonucleotides
 218 <400> SEQUENCE: 10
 219 tgccggcggaa cttcttctgc tcgggtctgca gttgtttct tgagg 45
 221 <210> SEQ ID NO: 11
 222 <211> LENGTH: 45
 223 <212> TYPE: DNA
 224 <213> ORGANISM: Artificial Sequence
 226 <220> FEATURE:
 227 <223> OTHER INFORMATION: Antisense Oligonucleotides
 229 <400> SEQUENCE: 11

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230 agcttgcggc agtagcaaaa ggcattgaag aagcggcagt agcac 45
232 <210> SEQ ID NO: 12
233 <211> LENGTH: 23
234 <212> TYPE: DNA
235 <213> ORGANISM: Artificial Sequence
237 <220> FEATURE:
238 <223> OTHER INFORMATION: Primer
240 <400> SEQUENCE: 12
241 aaatcagaag gccacacccc ggt 23
243 <210> SEQ ID NO: 13
244 <211> LENGTH: 25
245 <212> TYPE: DNA
246 <213> ORGANISM: Artificial Sequence
248 <220> FEATURE:
249 <223> OTHER INFORMATION: Primer
251 <400> SEQUENCE: 13
252 aaatcgaccc cggtggtg ctaat 25
254 <210> SEQ ID NO: 14
255 <211> LENGTH: 25
256 <212> TYPE: DNA
257 <213> ORGANISM: Artificial Sequence
259 <220> FEATURE:
260 <223> OTHER INFORMATION: Primer
262 <400> SEQUENCE: 14
263 taaagcgcatt gtcggact gcctt 25

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/518,955

DATE: 01/10/2005

TIME: 15:43:40

Input Set : A:\21033yp.txt

Output Set: N:\CRF4\01102005\J518955.raw

L:18 M:270 C: Current Application Number differs, Replaced Current Application No

L:18 M:271 C: Current Filing Date differs, Replaced Current Filing Date